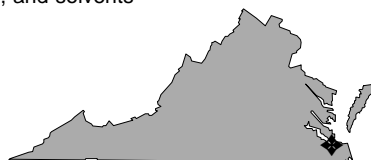


**Size:** 800 acres  
**Mission:** Maintain, repair, and overhaul nuclear submarines and nuclear and nonnuclear surface craft  
**HRS Score:** 50.0; proposed for NPL in March 1998  
**IAG Status:** Federal Facility Agreement to be negotiated in FY99  
**Contaminants:** Heavy metals, PCBs, VOCs, SVOCs, petroleum/oil/lubricants, and solvents  
**Media Affected:** Groundwater, surface water, sediment, and soil  
**Funding to Date:** \$7.3 million  
**Estimated Cost to Completion (Completion Year):** \$21.5 million (FY2016)  
**Final Remedy in Place or Response Complete Date for All Sites:** FY2007



Portsmouth, Virginia

## Restoration Background

Norfolk Naval Shipyard (NNSY) is located on the western bank of the Southern Branch of the Elizabeth River. In 1983, an Initial Assessment Study (IAS) identified 19 sites, 8 of which were determined to require further investigation. These sites were determined to have resulted from past land filling, disposal operations, and the operation of a plating shop. The plating shop site has since been determined not to pose a risk to human health or the environment, and therefore does not require any additional action other than monitoring. A RCRA Facility Investigation (RFI) was performed in 1986. An RFI supplement issued in 1987 identified 121 solid waste management units (SWMUs) and areas of concern (AOCs). The installation was proposed for inclusion on the National Priorities List (NPL) in March 1998 due to the potential impact of surface water runoff on Paradise Creek, which is adjacent to the disposal areas.

An administrative record was established in FY92, and a community relations plan was completed in FY94. The installation formed a technical review committee in FY94 and converted this to a Restoration Advisory Board (RAB) in FY96.

## FY98 Restoration Progress

The installation initiated a Remedial Investigation and Feasibility Study (RI/FS) for Operable Units (OUs) 1 and 2, which comprise six disposal areas and waste holding and accumulation areas. A Human Health Risk Assessment (HHRA) and an Ecological Risk Assessment (ERA) are under way. These assessments utilized EPA guidance documents and personnel support. The contamination present at OUs 1 and 2 was generated primarily before the 1980s by activities supporting the shipyard mission of repair of nuclear

and nonnuclear naval surface craft and submarine overhaul and repair. Investigation activities were accelerated by use of such technologies as a Global Positioning System, geoprobe, hydropunch, mobile on-site laboratory, and ground-penetrating radar.

The construction of a free-product recovery system was initiated as an Interim Remedial Action (IRA) to address petroleum contamination identified at Site 5, the Oil Reclamation Area. This contamination is believed to be the result of a leaking underground storage tank used from 1968 until the early 1980s for storing used oil before off-site shipment for recycling and disposal. The installation initiated an investigation to identify the nature and extent of potential dense nonaqueous-phase liquid contamination suspected to be present at the Oil Reclamation Area. A Site Screening Assessment (SSA) was initiated to better characterize the status of sites, SWMUs, AOCs, and any other areas with the potential to impact human health or the environment.

The RAB met four times. During these meetings, the RAB and regulatory agencies were informed about the status of RI/FS activities, the construction of an IRA system, and the results of the RI/FS for the plating shop. The last RAB meeting included a site visit to observe IRA construction at Site 5.

## Plan of Action

- Initiate IRA for Site 5, the Oil Reclamation Area, in FY99
- Complete delineation of nature and extent of potential contamination adjacent to Site 5 in FY99
- Complete RI/FS for OUs 1 and 2, including the HHRA and the ERA, in FY99

- Issue final RI for Site 17 in FY99
- Complete SSA in FY99
- Initiate Federal Facility Agreement (FFA) if placed on the NPL in FY99
- Assist Department of Justice in resolving potentially responsible party issues associated with the Atlantic Wood Industries Superfund site located adjacent to NNSY property in FY99

## FY99 FUNDING BY PHASE AND RELATIVE RISK

